

**CR049P****THE CORRELATION BETWEEN DIVERTICULOSIS AND REDUNDANT COLON**

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**Purpose:** Diverticulosis and redundant colon are colonic conditions for which underlying pathophysiology, management and prevention are poorly understood. Historical papers suggest an inverse relationship of these two conditions. However, no further attempt has been made to validate this relationship. This study set out to assess the correlation between diverticulosis and colonic redundancy.

**Methodology:** The presence of redundant colon and diverticulosis were noted during colonoscopy. Multivariate binary logistic regression was performed with the aim of developing a probability nomogram. Multivariate logistic regression was performed with redundant colon as the dependent variable and diverticulosis, age and gender as independent variables. Nagelkerke R<sup>2</sup> and a receiver operator curve with area under curve were calculated to assess goodness of fit and internally validate the multivariate model.

**Results:** The probability of redundant colon was increased by female gender odds ratio (OR) 8.4 (95% CI 2.7-26, p=0.00020) and increasing age OR 1.7 (95% CI 1.1-2.6, p=0.017). Paradoxically, diverticulosis strongly reduced the probability of redundant colon with OR of 0.12 (95% CI 0.42-0.32, p=0.000039). The Nagelkerke R<sup>2</sup> for the multivariate model was 0.29 and area under the curve at ROC analysis was 0.81 (CI 95% 0.73-0.90 p-value 3.1x10<sup>-8</sup>).

**Conclusions:** This study found an inverse correlation between redundant colon and diverticulosis, supporting the historical suggestion that the two conditions rarely occur concurrently. The underlying principle for this relationship remains to be found. However, it may contribute to the understanding of the aetiology and pathophysiology of these colonic conditions.